

ENGLISH TRANSLTION OF CITED REFERENCE

1. Cited Reference 1

**(19) Korean Intellectual Property Office (KR)
(12) Laid-Open Patent Gazette (A)**

(51) Int. Cl. ⁷	(11) Publication No.	10-2003-0068633
H01L 23/38	(43) Publication Date	August 25, 2003
(21) Application No.	10-2002-0008104	
(22) Application Date	February 15, 2002	
(73) Applicant(s)	EMC Tech Co., Ltd.	
(72) Inventor(s)	Lee, Gi-Chun	
(74) Agent	YOUME Patent Law Office	

Request for Examination: Filed

**(54) APPARATUS FOR COOLING INTEGRATED CIRCUIT USING
THERMOELECTRIC ELEMENT**

[ABSTRACT]

The present invention relates to an apparatus for cooling integrated circuit, and particularly, an apparatus for cooling an integrated circuit using a thermoelectric element.

An apparatus for cooling an integrated circuit using a thermoelectric element comprises a heat sink to perform a function of radiating the heat generated from the integrated circuit to the outside, a thermoelectric element to perform a function of cooling the heat generated from the integrated circuit by using a thermoelectric effect, a temperature detecting unit to perform a function of measuring the temperature of the integrated circuit, and a control unit to operate the thermoelectric element when the temperature is higher than a predetermined upper limit and to stop the thermoelectric element when the temperature of the integrated circuit becomes lower than a predetermined lower limit, by using the temperature of the integrated circuit inputted from the temperature detecting unit.

[REPRESENTATIVE CLAIMS]

1. An apparatus for cooling an integrated circuit using a thermoelectric element, comprising:
 - a heat sink to perform a function of radiating the heat generated from the integrated circuit to the outside;
 - a thermoelectric element to perform a function of cooling the heat generated from the integrated circuit by using a thermoelectric effect;
 - a temperature detecting unit to perform a function of measuring the temperature of the integrated circuit; and
 - a control unit to operate the thermoelectric element when the temperature is higher than a predetermined upper limit and to stop the thermoelectric element when the temperature of the integrated circuit becomes lower than a predetermined lower limit, by using the temperature of the integrated circuit inputted from the temperature detecting unit.